ABSTRACT

A method and apparatus to provide appropriate coupling between resonators in an HTS microstrip filter are disclosed. Primary and secondary couplings between a pair of resonators are utilized. With a given spacing, the primary coupling is fixed, while the secondary coupling can have different magnitude. In addition, the secondary coupling can have the same phase or opposite phase as the primary coupling. With different combinations, large or small bandwidth filters can be made without very small or very large spacing between resonators. The same cross coupling layout configuration may be designed to achieve either positive or negative results.